



# California Regional Water Quality Control Board

## Central Valley Region

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Arnold  
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Governor

### 2005/2006 RAINY SEASON

#### MONITORING REQUIREMENTS FOR STORM WATER TREATMENT SYSTEMS THAT UTILIZE CHEMICAL ADDITIVES TO ENHANCE SEDIMENTATION

Project Owner/Developer:

Many developers in the Central Valley Region are using chemical systems to treat storm water discharges from their construction sites. These systems can be very effective in reducing the sediment in storm water runoff, but the additives used to enhance sedimentation also pose a potential risk to water quality. Specifically, we are concerned about the potential acute and chronic impacts that the polymers and other chemical additives may have on aquatic life in surface waters. In response to these concerns, all construction project owners in the Central Valley Region must develop and implement monitoring programs for Advanced Treatment Systems utilizing chemical additives to enhance sedimentation.

Part D.5. of the statewide General Construction Storm Water Permit provides the Regional Boards authority to require additional monitoring and reporting program requirements where appropriate.

**In the Central Valley Region, all construction projects that utilize chemical additives to enhance sedimentation must prepare and implement monitoring plans for discharges to surface waters.**

At a minimum your plan must include:

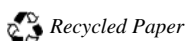
- An effluent monitoring program that includes at least the following:

| <u>Constituent</u>         | <u>Units</u> | <u>Type of Sample</u> | <u>Sampling Frequency*</u> |
|----------------------------|--------------|-----------------------|----------------------------|
| Turbidity                  | NTU          | Grab                  | Hourly                     |
| pH                         | pH Units     | Grab                  | Hourly                     |
| Residual Chemical Additive | mg/l         | Grab                  | Daily**                    |
| Flow                       | gpd          | Meter                 | Continuous                 |

\* Sampling is required only on days of operation resulting in a discharge

\*\*And upon any material change in operation or system maintenance

*California Environmental Protection Agency*



- A description of the sampling protocol, field test methods, laboratory analysis, sampling frequency, and Quality Assurance/Quality Control protocols.
  - Because laboratory analysis will not provide the information needed to allow immediate assessment of treatment system performance it is preferable to use real-time monitoring or field-analytical techniques. If real-time monitoring or field analyses are used the QA/QC plan must include duplicates sent to a laboratory monthly to verify method performance and confirm field data.
  - If a U.S. EPA approved laboratory analytical method does not exist to measure the presence of the chemical additive, and the discharger is relying on a colorimetric absence/presence field test method, the discharger must demonstrate the approximate reproducible detection level of the field test. This information must be obtained from a certified laboratory.
  - If a colorimetric test method is utilized, the turbidity of the effluent shall not exceed the limitations of the test method. That turbidity level must be identified and justified in the QA/QC plan.
- Monitoring to ensure the functionality of the final effluent filter. The final filter shall be of sufficient pore size to ensure the removal of the chemical additive from the effluent. Discussion of adequacy of pore size must be specified in the QA/QC plan.
- Daily on-site visual monitoring of the system operation and performance by a qualified person. List the name and phone number of the qualified person assigned the responsibility of operation and monitoring of the system. Provide documentation of the qualified person's training as required by the statewide General Construction Storm Water Permit.
- Procedures to notify Regional Board staff of your intent to utilize chemical additives at your project site to enhance sedimentation. Notification should be submitted in writing to the Regional Board field inspection staff person responsible for your jurisdiction prior to initial discharge from the treatment system.
- A description of the non-compliance reporting plan. Report any toxicity or other violations of water quality objectives as required by the statewide General Construction Storm Water Permit.
- The overall monitoring program must demonstrate that the discharges will not lead to toxicity or other violations of water quality objectives contained in the Basin Plan for the Sacramento and San Joaquin River Basins.
- The monitoring plan and the results of the monitoring efforts shall be kept with the SWPPP.

If you have questions about the information in this letter, please contact the Regional Board field inspection staff person responsible for your jurisdiction:

| <b>County</b>   | <b>Name</b>       | <b>Phone Number And<br/>E-Mail Address</b>      |
|---|-------------------|---|
| Sierra<br>Placer<br>Nevada<br>Yolo<br>Solano                              | Dani Berchtold    | (916) 464-4683<br>dberchtold@waterboards.ca.gov |
| Stanislaus<br>Tuolumne<br>Amador<br>Calaveras<br>Sutter<br>Yuba<br>Colusa | Rich Muhl         | (916) 464-4749<br>rmuhl@waterboards.ca.gov      |
| San Joaquin   | Brett Stevens     | (916) 464-4642<br>bstevens@waterboards.ca.gov   |
| Lake<br>Napa  | Patrick Gillum    | (916) 464-4709<br>pgillum@waterboards.ca.gov    |
| Sacramento<br>Contra Costa  | Christine Palisoc | (916) 464-4663<br>cpalisoc@waterboards.ca.gov   |
| El Dorado<br>City of Folsom   | Jacque Kelley     | (916) 464-4764<br>Jkelley@waterboards.ca.gov    |